

ABSTRACT OF THE DISCLOSURE

A method is provided for forming a split-gate flash memory cell having a shallow trench isolation without the intrusion of a "smiling" gap near the edge of the trench encompassing the first polysilicon layer. This is accomplished by forming two conformal layers lining the interior walls of the trench. An exceptionally thin nitride layer overlying the first conformal oxide layer provides the necessary protection during the oxidation of the first polysilicon layer so as to prevent the "smiling" effect normally encountered in fabricating ultra large scale integrated circuits.